

Doc Code: AP.PRE.REQ

PTO/SB/33 (07-09)

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

079280-0380802 SRF-123

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on September 28, 2010 via electronic submission

Signature

Typed or printed name Linda Major

Application Number

09/967,136

Filed

September 27, 2001

First Named Inventor

Richard Joseph McConnell

Art Unit

2611

Examiner

Kevin Michael Burd

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the


☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record. 40,580
Registration number

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____


Signature

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Typed or printed name

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Telephone number

September 28, 2010

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Richard J. McConnell

Confirmation No. 4922

Serial No.: 09/967,136

Examiner: Kevin M. Burd

Art Unit: 2611

Filed: September 27, 2001

Atty. Docket No.: 079280-0380802

SRF-123

For: Method for Reducing the Calculation Complexity for Code Acquisition and Correlation

Filed electronically via EFS.

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop After-Final
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant respectfully requests review of the Final Office Action mailed June 28, 2010, for which a response is originally and currently due September 28, 2010. This request is being filed with a Notice of Appeal under Rule 191, and Notice of Appeal is hereby given. The review is requested for the reason(s) stated hereinbelow. The Commissioner is authorized to charge the Notice of Appeal Fee and any other required fee or to credit any overpayments to Pillsbury Winthrop Shaw Pittman LLP's deposit account no. 03-3975 (order no. 079280-0380802).

Applicant thanks the Examiner for withdrawing the 35 U.S.C. § 101 and 112 rejections in light of Applicant's previous response. No amendments are being filed with this request. Claims 1, 3-6, 8 and 17-20 are pending in the application, with Claim 1 being independent. Claims 2, 7, and 9-16 were canceled previously. Claims 3-6, 8, and 17-20 depend from Claim 1.

Claims 1, 3-6, 8 and 17-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,370,208 to Kuo (“Kuo”) in view of U.S. Patent No. 6,285,655 to Lundby et al. (“Lundby”) and further in view of U.S. Patent No. 6,650,879 to Underbrink (“Underbrink”). Applicant submits that the §103(a) rejection of the independent Claim 1 is in error because: 1) the Examiner has applied a wrong interpretation of some patentable features as claimed in independent Claim 1; 2) a prima facie case of obviousness has not been properly established, and, 3) the Examiner has never addressed at least one of the patentable features of independent Claim 1.

Applicant restates and incorporates his previous responses to the pending rejections. For convenience, the discussion below will focus as much as possible on points raised in the Final Office Action.

Applicant still does not acquiesce with the Examiner’s position, as expressed in the ‘Response to Arguments’ section of the Final Office Action, that Kuo’s pre-correlation codes are equivalent to the post-correlation partial accumulation codes described in the present Application. The Examiner himself admits in the ‘Response to Arguments’ section that, “Kuo discloses determining codes that are repeated in the correlation process. Some of these codes are redundant codes that are repeated during the correlation process. A portion of these codes are removed, and the remaining codes are correlated with the pseudo random codes that are received in the spread data signal. These codes are the partial accumulations[.]” Therefore, it is clear that, even according to the Examiner, the codes are generated before the correlation with the received signal. In the response filed on April 29, 2010, Applicant referred to Kuo’s description in column 2, line 66 to column 3, line 4, where Kuo discloses, first *identifying locations for which a corresponding set of element values for all the codes are equivalent*; then *aggregating the portions of the signal at the locations identified as having equivalent element values*; followed by *performing correlation function on the aggregated portions to demodulate the signal*. In contrast, Claim 1 of the present Application recites, “determining, for the spread spectrum signal, partial accumulations that are repeated in a correlation process of the spread spectrum signal using a data slice of the spread spectrum signal made up of in phase (I) signal data and quadrature phase (Q) signal data correlated with pseudorandom codes[.]” Clearly, in the present Application, the correlation process takes place prior to identifying partial accumulations. Therefore, Kuo’s pre-

correlation codes can not possibly be equivalent to the post-correlation partial accumulations recited in Claim 1. So, the Examiner is clearly mistaken in his analysis.

Additionally, Applicant does not agree that Kuo uses a “data slice,” as defined and claimed in the present Application. In the present Application, the data slice also comprises post-correlation signals. Kuo nowhere explicitly teaches use of a “data slice.” Even if for argument’s sake, it is assumed that a spread spectrum signal of Kuo, comprising a plurality of data bytes and a plurality of PN code bytes (see, Page 3, lines 8-9 of the Final Office Action), is equivalent to a “data slice,” the data slice of Kuo is still not a post-correlation signal.

As demonstrated in this response and the respective responses to the previous Office Actions, the primary reference Kuo fails to teach or suggest at least some features of independent Claim 1. The secondary reference Lundby is applied primarily to teach separating received signal into I and Q components, and the secondary reference Underbrink is applied to teach a personal communication device with a GPS receiver that can process CDMA signals. Therefore, the secondary references Lundby and Underbrink, in any possible combination with Kuo, fail to cure the deficiencies of Kuo, as discussed above. Hence, a *prima facie* case of obviousness has not been established.

Further, Applicant notes that during the entire course of prosecution, the Examiner has never addressed the fact that none of the references teaches or even suggests the use of a look-up table to simplify a correlation process, much less, how such a look-up table is populated. The present invention specifically claims the use of a look-up table in independent Claim 1. Support for this claimed feature can be found, for example, in original FIG. 7 and associated text on Pages 11 and 12, where it is described that the use of the look-up table facilitates the correlation process by reducing the number of actual mathematical operations, e.g., XOR operations, that are necessary to get a final correlation result. In the Amendment and Response dated January 21, 2010, accompanying the Request of Continued Examination (RCE), Applicant has added an additional drawing, FIG. 8, showing a flowchart, and amended the specification accordingly, to emphasize this patentable feature of using a look-up table to facilitate the correlation process. The additional drawing (FIG. 8) has been accepted by the Examiner, as indicated in the following non-final Office Action, dated January 29, 2010. However, the Examiner has maintained his rejections, choosing to ignore Applicant’s arguments related to the use of a look-

up table. Applicant asserts that none of the applied references teaches or suggests at least the following claim limitation, “using, by the GPS receiver, the data slice to look up a corresponding accumulation value in the at least one table during the correlation process to determine when a locally generated pseudorandom code and the incoming pseudorandom code received at the GPS receiver are correlated, wherein the at least one table is constructed for one of the terms of the spread spectrum signal.”

In light of the above reasons, independent Claim 1 distinguishes over the combination of Kuo, Lundby, and Underbrink, and should be allowed. Dependent Claims 3-6, 8 and 17-20, depending from Claim 1, should be allowed at least for being dependent from the allowable independent base claim, as discussed above, as well as for their own patentable features. Accordingly, the § 103 rejections of independent Claim 1, together with its dependent claims, should be withdrawn.

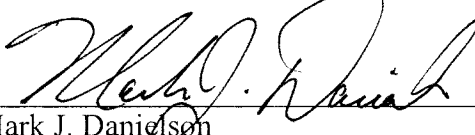
Conclusion

For at least the above reasons, independent Claim 1, together with all remaining pending claims that depend therefrom, patentably defines over the cited prior arts and the rejections of these claims should be withdrawn. Further, the claims are believed to be in form for allowance, and Notice thereof is hereby solicited.

If any issues remain which the Examiner feels may be resolved through a telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,
PILLSBURY WINTHROP SHAW PITTMAN LLP

Date: Sept 28, 2010



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